

CLAIMS

What is claimed is:

1. An inductor operable under various supply voltages comprising a core for interacting with conductive coils to produce inductance, a first coil serving as a primary coil for supply voltage, a second coil serving as a secondary coil for supply voltage, and a bobbin for supporting and mounting said first and said second coils, characterized by

said first and second coils being connected in series, and said first coil having a coil diameter larger than that of said second coil whereby input electric current flows through one coil selected from said first and second coils by utilizing a selecting switch, so as to generate sufficient corresponding inductance according to various input supply voltages.

2. The inductor operable under various supply voltages as claimed in claim 1, wherein

said first coil and said second coil are connected at a connecting end to which said selecting switch is connected.

3. The inductor operable under various supply voltages as claimed in claim 1, wherein

said selecting switch is a manual selecting switch.

4. The inductor operable under various supply voltages as claimed in claim 1, wherein said selecting switch is an automatic selecting switch comprising a supply voltage detecting unit and a switch control unit, and

wherein said voltage-detecting unit is used to detect an input supply voltage, while said switch control unit is used to turn on/off a circuit based on detected results obtained from the voltage-detecting unit.

5. The inductor operable under various supply voltages as claimed in claim 1, wherein

said core is made of silicon steel.

6. The inductor operable under various supply voltages as claimed in claim 1, wherein

said core comprises an E-like core member and an I-like core member.

7. The inductor operable under various supply voltages as claimed in claim 6,
wherein

said E-like core member has a central protrusion passing through said bobbin.

8. The inductor operable under various supply voltages as claimed in claim 6,
wherein

said first coil is wound on said bobbin and then said second coil is wound on
said second coil.

9. The inductor operable under various supply voltages as claimed in claim 8,
wherein

insulation material is further provided between said first coil and said second
coil.